

AMENDMENTS TO THE DRAWINGS

The attached new sheet of drawings includes a new FIG. 4. Fig. 4 finds support in Claim 1 as originally filed.

Attachment: 1 New Sheet of Drawings

REMARKS

In the Official Action mailed on **23 June 2006**, the Examiner reviewed claims 1-20. The drawings were objected to under 37 C.F.R. 1.83(a). Claim 20 was objected to under 37 C.F.R. 1.75(d)(1). Claims 7 and 16 were rejected under 35 U.S.C §112 as failing to comply with the enablement requirement. Claims 7, 8, 17, and 18 were rejected under 35 U.S.C §112 as being indefinite. Claims 2 and 11 were rejected under 35 U.S.C §112 as failing to further limit the claimed subject matter. Claims 1-3, 5-6, 8-12, 14-15, and 17-20 were rejected under 35 U.S.C. §102(e) as being anticipated by Ang (USPN 2003/0079085, hereinafter "Ang"). Claims 7 and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ang as applied to claims 1-3, 5-6, 8-12, 14-15, and 17-20.

Objections to the drawings under 37 C.F.R. 1.83(a)

The drawings were objected to as not showing every feature of claims 10, 19, and 16. Applicant has added a new sheet to the drawings, and respectfully submits that this in compliance with 37 CFR 1.121(d). No new matter has been added.

The drawings were further objected because Fig. 1 is labeled "Prior Art," but disclosed in the specification as an embodiment of the present invention. In accordance with the Examiner's comments, the specification has been modified to clarify that FIG. 1 does not illustrate an embodiment of the present invention. No new matter has been added.

Objections under 37 C.F.R. 1.75(d)(1)

Claim 20 is objected to as not having clear support or antecedent basis in the original filed specification. Applicant has modified the specification by adding text such that the limitations in claim 20 find support here. No new matter has been added.

Rejections under 35 U.S.C §112

Claims 7 and 16 were rejected as failing to comply with the enablement requirement. Applicant has amended claims 7 and 16 and respectfully submits that these amendments comply with the enablement requirement. Claims 7, 8, 17, and 18 were rejected for failing to particularly point out and distinctly claim the subject matter. Applicant has amended claims 7, 8, 17, and 18 and respectfully submits that these amendments particularly point out and distinctly claim the subject matter. Claims 2 and 11 were rejected as failing to further limit the claimed subject matter. Claims 2 and 11 have been canceled without prejudice.

Rejections under 35 U.S.C. §102(e) and 35 U.S.C. §103(a)

Claims 1-3, 5-6, 8-12, 14-15, and 17-20 were rejected as being anticipated by Ang. Dependent claims 7 and 16 were rejected as being unpatentable over Ang as applied to claims 1-3, 5-6, 8-12, 14-15, and 17-20. Applicant respectfully points out that Ang teaches that the decisions regarding assignment of the particular coherency protocol is made by the coherence engine which resides on the memory controller. The memory controller is coupled to the processor by the system bus (see paragraphs [0018] and [0048] of Ang). Thus, the assignment of the coherency protocol is itself a function of the load on the system bus.

In contrast, the present invention teaches making the decision about employing the write-invalidate or write-broadcast protocols at the cache controller that resides in the processor (see FIG. 2 and paragraphs [0029]-[0030] in page 7 of the instant application). This is beneficial because, each cache-line update will trigger the particular coherency protocol independent of the load characteristics at the system bus.

Applicant respectfully submits that there is nothing in Ang, either explicit or implicit, which suggests that the coherency decisions can be made without being influenced by the system bus.

Accordingly, Applicant has amended independent claims 1, 10, 19, and 20 to clarify that the present invention teaches that the cache controller resides in the processor. These amendments find support in FIG. 2 and paragraphs [0029]-[0030] of the instant application. Dependent claims 3 and 12 have been amended to correct antecedent basis. No new matter has been added.

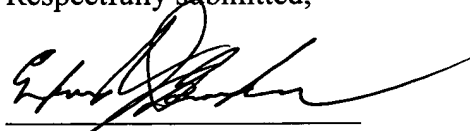
Hence, Applicant respectfully submits that independent claims 1, 10, 19, and 20 as presently amended are in condition for allowance. Applicant also submits that claims 3 and 5-9, which depend upon claim 1, and claims 12 and 14-18, which depend upon claim 10, are for the same reasons in condition for allowance and for reasons of the unique combinations recited in such claims.

CONCLUSION

It is submitted that the present application is presently in form for allowance. Such action is respectfully requested.

Respectfully submitted,

By



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